

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
6 November 2003 (06.11.2003)

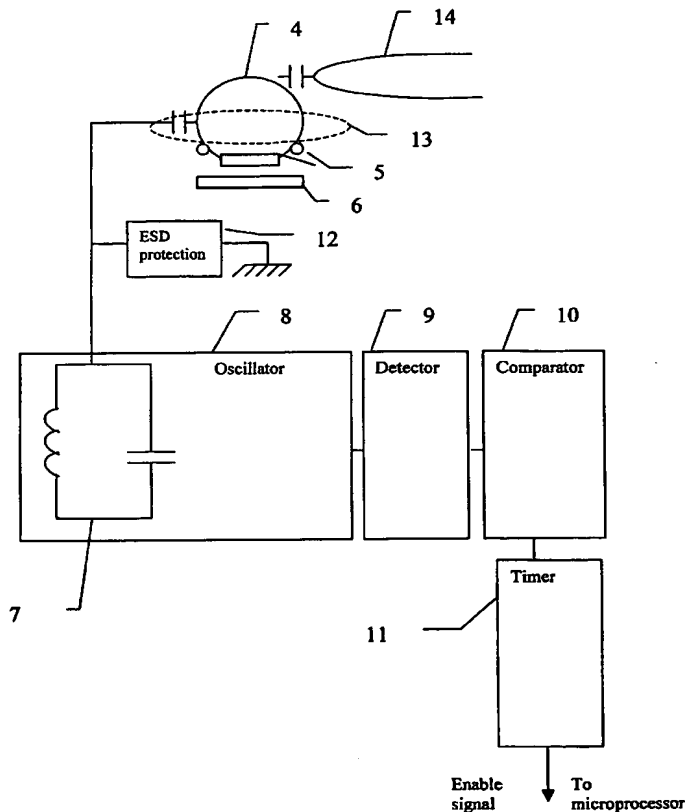
PCT

(10) International Publication Number  
**WO 2003/091934 A3**

- (51) International Patent Classification<sup>7</sup>: **G06K 11/18**, (74) Agents: **AKERMAN, Mårten et al.**; Albihns Malmö AB, P.O. Box 4289, S-203 14 Malmö (SE).
- (21) International Application Number: **PCT/EP2003/003974**
- (22) International Filing Date: **16 April 2003 (16.04.2003)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:  
02445051.2 23 April 2002 (23.04.2002) EP  
60/377,090 2 May 2002 (02.05.2002) US
- (71) Applicant (for all designated States except US): **SONY ERICSSON MOBILE COMMUNICATIONS AB** [SE/SE]; S-221 88 Lund (SE).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **KLINGHULT, Gunnar** [SE/SE]; Örmvågen 42, S-227 31 Lund (SE).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: POINTING DEVICE ENABLING MEANS, INPUT DEVICE AND PORTABLE DEVICE INCORPORATING SAME



(57) Abstract: The invention relates to means for enabling actuation of a pointing device and more particularly a means for detecting activity of a pointing device, so that the pointing is energized only when it needs to be in operation. The means include an activity sensor for sensing activation of the pointing device, said activity sensor comprising a threshold comparator, wherein the activity sensor is adapted to enable energization of the pointing device when the sensed activation of the pointing device exceeds a threshold. The pointing device is used for moving a pointer or prompt in a display, e.g. in mobile telephone. The present invention also relates to an input device with such a pointing device and a portable device incorporating same. The invention is directed to saving energy in portable devices avoiding accidental activation of the pointing device and automatic switching off to reduce the power consumption.

WO 2003/091934 A3

**Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations  
— of inventorship (Rule 4.17(iv)) for US only

**Published:**

- with international search report  
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

6 May 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

# INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/EP 00/3974

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G06K11/18 G06F1/32 G06F3/033

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G06K G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00/20959 A (GATEWAY INC) 13 April 2000 (2000-04-13) cited in the application page 1, line 14 - line 20 page 2, line 1 - line 17 page 6, line 15 - page 7, line 5; figure 4	1,5,8,9, 13-15, 17-19
Y		2-4,6,7, 10-12,16
X	GB 2 276 261 A (SONY CORP) 21 September 1994 (1994-09-21) page 6, paragraph 2 ----- -/--	1,9,18, 19

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \* & \* document member of the same patent family

Date of the actual completion of the international search

15 March 2004

Date of mailing of the international search report

22/03/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Durand, J

## INTERNATIONAL SEARCH REPORT

International Publication No  
PCT/EP 03974

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GB 2 279 750 A (INWOOD DAVID JOHN ; RYAN PAUL THOMAS (GB)) 11 January 1995 (1995-01-11) page 7, last paragraph - page 8, paragraph 2 page 9, paragraph SECOND	2-4, 6, 7, 10-12, 16
A	----- US 6 282 655 B1 (GIVEN PAUL) 28 August 2001 (2001-08-28) column 2, line 6 - line 42	1, 3, 4, 7, 9, 11, 13
A	----- WO 89/02635 A (SIMPSON ROLAND BRUCE) 23 March 1989 (1989-03-23) abstract	4, 12
A	----- EP 0 052 685 A (STARCOTE LIMITED) 2 June 1982 (1982-06-02) the whole document	6, 7, 16
A	----- EP 1 073 004 A (NOKIA MOBILE PHONES LTD) 31 January 2001 (2001-01-31) abstract; figure 1	8, 17
X	----- US 6 269 449 B1 (KOCIS THOMAS J) 31 July 2001 (2001-07-31) the whole document	18, 19
A	----- EP 0 910 006 A (HUDSON SOFT CO LTD) 21 April 1999 (1999-04-21) paragraph '0020! paragraph '0027! - paragraph '0028! -----	1-5, 9-13
		1, 3, 5, 9, 11, 13

# INTERNATIONAL SEARCH REPORT

International Publication No  
PCT/EP 03974

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0020959	A	13-04-2000	AU 5397499 A WO 0020959 A1	26-04-2000 13-04-2000
GB 2276261	A	21-09-1994	JP 6276588 A US 5774114 A	30-09-1994 30-06-1998
GB 2279750	A	11-01-1995	NONE	
US 6282655	B1	28-08-2001	US 6560711 B1 AU 5028600 A EP 1214654 A1 WO 0072150 A1	06-05-2003 12-12-2000 19-06-2002 30-11-2000
WO 8902635	A	23-03-1989	AU 2481088 A WO 8902635 A1 GB 2228574 A	17-04-1989 23-03-1989 29-08-1990
EP 0052685	A	02-06-1982	EP 0052685 A1	02-06-1982
EP 1073004	A	31-01-2001	US 6480185 B1 EP 1073004 A2	12-11-2002 31-01-2001
US 6269449	B1	31-07-2001	NONE	
EP 0910006	A	21-04-1999	JP 3212272 B2 JP 11119867 A CA 2250368 A1 CN 1214482 A EP 0910006 A2	25-09-2001 30-04-1999 15-04-1999 21-04-1999 21-04-1999